UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,194	06/23/2003	Yoshi Ono	SLA 0669	9996

7590 12/10/2004	**EXAMINER**
David C. Ripma	NGUYEN, KHIEM D
Patent Counsel	

ART UNIT	PAPER NUMBER
2823	

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DATE MAILED: 12/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No.	Applicant(s)
	10/602,194	YOSHI ONO
	Examiner	Art Unit	
	Khiem D Nguyen	2823	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 15 November 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may <u>only</u> be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a) ☒ The period for reply expires <u>3</u> months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1.☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2.☒ The proposed amendment(s) will not be entered because:

(a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);

(b) ☐ they raise the issue of new matter (see Note below);

(c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

(d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: *See Continuation Sheet*.

3.☐ Applicant's reply has overcome the following rejection(s): _____.

4.☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5.☒ The a)☐ affidavit, b)☐ exhibit, or c)☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: *See Continuation Sheet*.

6.☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7.☒ For purposes of Appeal, the proposed amendment(s) a)☒ will not be entered or b)☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:
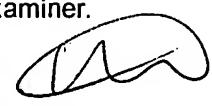
Claim(s) allowed: *none*.

Claim(s) objected to: *none*.

Claim(s) rejected: *1-22*.

Claim(s) withdrawn from consideration: *none*.

8.☐ The drawing correction filed on _____ is a)☐ approved or b)☐ disapproved by the Examiner.

9.☐ Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____.

10.☐ Other: _____

**W. DAVID COLEMAN
PRIMARY EXAMINER**

Continuation of 2. NOTE: The proposed amendment changing the scope of independent claims 1, 9, and 16 (i.e. ", wherein the silicon nitride layer is formed from silicon in the silicon wafer and nitrogen from the dissociated nitrogen-containing gas, and wherein the silicon nitride layer so formed has a thickness of less than 5 nm") raised new issues requiring further consideration and new search.

Continuation of 5. does NOT place the application in condition for allowance because: Applicant contends that the reference, Suzuki et al. (U.S. Patent 5,585,148), herein known as Suzuki does not teach nor suggest that a nitrogen-containing gas is dissociated by an excimer lamp.

In response to Applicant's contention that Suzuki does not teach nor suggest that a nitrogen-containing gas is dissociated by an excimer lamp, Examiner respectfully disagrees. Since the light from the illumination system 10 having a xenon lamp as the light source through the light introduction window 11 (col. 12, lines 19-23 and FIGS. 1-6), which is equivalent to an excimer lamp, this light source would provide sufficient energy to dissociate NH3 into N or N2. Furtheremore, as disclosed by Suzuki, the resulting layer is a SiN layer was formed uniformly with high quality on the substrate 2 (col. 9, lines 54-56). Hence, it is inherent that the nitrogen-containing gas NH3 (col. 9, lines 32-57) was dissociated by the light source from the illumination system to produce the SiN layer. For these reasons, Examiner holds the rejection proper.

Applicant's remaining argument relies on the proposed amendment which has not been entered.